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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,484

04/29/2005

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38201

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04/09/2007

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EXAMINER

WONG, JOSEPH D

ART UNIT

PAPER NUMBER

2168

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/533,484

Applicant(s)

IIDA ET AL.

Examiner

Joseph D. Wong

Art Unit

2168

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on June 17, 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20050429.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-37 are rejected for being directed towards nonstatutory subject matter.

Claims 1, 5 and 23 appear directed a system comprising units of software per se.

Software per se is not one of the four categories of invention. Software per se is not a series of steps or acts and thus is not a process. Software per se is not a physical article object and as such is not a machine or manufacture. Software per se is not a combination of substances and therefore is not a composition of matter. "Files" can be considered to be abstract disembodied entities. The system claim lacks positive recitation of physical articles with a functional relationship with abstract manipulations which can be interpreted to be implemented with units of disembodied software. Claims 2-8 and 10-21 and 24-37 depend from claims 1, 5 and 23 respectively and are rejected. Claims 9, 22 and 33 are rejected for having an abstract result.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Peek et al., “UNIX Power Tools”, August 1997, O’Reilly, 2nd Edition, hereinafter Peek.

Regarding claim 1, Peek practices a data updating system using differential data (interpreted to include “diff command”, P. 492, Sec. 28.01), comprising: a differential data producing unit (interpreted to include “diff”, P. 493, [8]) which has a plurality of versions of data (interpreted to include “Three Different Versions”, P. 494, Sec. 28.02) for producing the differential data representing the difference between a pre-updating file as one version of data (interpreted to include “brochure”, P. 493, [7-8]) and a post-updating file as another version of the data (interpreted to include “brochure.edits”, P. 493, [7-8]); a communicating unit which transfers the differential data; and a post-updating file restoring unit which receives the differential data (interpreted to include “redirect standard output...to capture this script in a file”, P. 492), and restores the post-updating file based on the already stored pre-updating file and the received differential data (interpreted to include “patch program”, P. 496, [9]), wherein the differential data includes Move data indicating zero, one, or a plurality of Move instructions to move and copy data from a part or all of the pre-updating file (interpreted to include “ed-like notation” and “1d”, P. 494, [3-4, 7]) and Add data indicating zero, one, or a plurality of Add instructions to add and copy data in the differential data. (interpreted to include “>grapes”, P. 492, [4])

Claims 1-8 and 10-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Korn et al., European Patent Application 0 717 353 A2, published 19 June 1996, hereinafter Korn.

Regarding claim 1, Korn discloses a data updating system (Title) using differential data (interpreted to include “transformation”, Fig. 1), comprising: a differential data producing unit (interpreted to include “transformation...which contains...similarities and differences”, P.1, abstract, Fig. 1) which has a plurality of versions of data (interpreted to include “Version 1”, “Version 2”, Fig. 1) for producing the differential data representing the difference between a pre-updating file as one version of data (interpreted to include “Version 1”) and a post-updating file as another version of the data (interpreted to include “Version 2”, Fig. 1); a communicating unit which transfers the differential data; and a post-updating file restoring unit which receives the differential data (interpreted to include “transformation”, Fig. 1), and restores the post-updating file based on the already stored pre-updating file and the received differential data (right side, Fig. 1), wherein the differential data includes Move data indicating zero, one, or a plurality of Move instructions to move and copy data from a part or all of the pre-updating file (interpreted to include “COPY”, Fig. 2) and Add data indicating zero, one, or a plurality of Add instructions to add and copy data in the differential data. (P. 3, Lines 50-55, Fig. 2A)

Regarding claim 2, Korn discloses the data updating system (Title, Abstract), wherein the differential data is made of the Add data instead of the Move data when the length of the Move data is smaller than a prescribed threshold. (interpreted to include “LENGTH 16”, Fig. 2A)

Regarding claim 3, Korn discloses the data updating system according, wherein in the differential data, the Move data has data length information indicating the length of a data string to be copied and address information indicating the location of the data string to be copied; and

wherein at least one of the data length information and the address information is made of a variable bit length. (interpreted to include "110", Fig. 1J, right side)

Regarding claim 4, Korn discloses the data updating system (Title, Abstract) according, wherein in the differential data, the Move data has data length information indicating the length of a data string to be copied and address information indicating the location of the data string to be copied (Fig. 1D, 1F), a relative address for moving the data string being used as the address information (Fig. 1E, 6-7), and wherein when the same relative address value appears in a plurality of pieces of Move data, the one or more relative address values are expressed by one or more bits. (Fig. 6-7, 10)

Regarding claim 5, Korn discloses a differential data producing device (Fig. 1) in a data updating system for producing differential data (interpreted to include "transformation...which contains...differences", abstract) representing the difference between a pre-updating file as one version of data (interpreted to include "Version 1", Fig. 1) and a post-updating file as another version of the data (interpreted to include "Version 2", Fig. 1), transferring the differential data to another location through a communication unit (interpreted to include "communication channel", Fig. 1), and restoring the post-updating file (interpreted to include "Version 2", Fig. 1) based on the stored pre-updating file at the transfer destination and the differential data, the differential data producing device (interpreted to include "target computer", right side, Fig. 1), comprising: a matching data string search unit which searches the pre-updating file for a data string which is matched with a data string in the post-updating file; a Move/Add determining unit

which determines whether to produce Move data or Add data as the differential data based on the search result, the Move data indicating a Move instruction to move and copy a matching data string from a part or all of the pre-updating file to the post-updating file, and the Add data indicating an Add instruction to add and copy a data string (P. 3, Lines 50-55, Fig. 2A) in the differential data to the post-updating file; a Move data output unit which outputs the Move data (interpreted to include "COPY", Fig. 2); and an Add data output unit which outputs the Add data, wherein the differential data has zero, one, or a plurality of pieces of the Move data and zero, one, or a plurality of pieces of the Add data. (P. 3, Lines 50-55, Fig. 2A)

Regarding claim 6, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move data output unit includes a separator output unit for outputting a separator made of particular data indicating the beginning of the Move data (P. 4, Lines 45-50; P. 30, Lines 192-231); and wherein data expressing the Move instruction is outputted after outputting of the separator. (P. 3, Lines 50 #1, 53#3, 55#5)

Regarding claim 7, Korn discloses the differential data producing device (Fig. 1) according, wherein when prescribed data used as the separator exists in the Add data, the Add data output unit outputs prescribed data indicating that the prescribed data is not a separator following the data. (P. 10, Lines 55-58)

Regarding claim 8, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move/Add determining unit determines that the Move data unit outputs

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(Fig. 1H) the matching data string as the Move data when the length of the matching data string is equal to or greater than a prescribed threshold and that the Add data output unit (Fig. 1G) outputs the matching data strings as the Add data when the length of the matching data string is smaller than the prescribed threshold. (interpreted to include "LENGTH 15", Fig. 2A)

Regarding claim 10, Korn discloses the differential data producing device (Fig. 1) according, wherein when the differential data between the pre-updating file as one version and the post-updating file as another version is produced, the differential data is produced by using a plurality of different thresholds as the threshold in the Move/Add determining unit; and wherein the differential data having a minimum size is employed. (P. 11, Lines 13-15, 36-39)

Regarding claim 11, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move/Add determining unit compares the sizes of differential data between when the matching data string is expressed by the Move data and when the data string is expressed by the Add data, and determines that the data having a smaller size is to be selected. (P. 11, Lines 35-15; P. 12, Lines 15-20)

Regarding claim 12, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move data output unit provides a data length continuation flag (interpreted to include "EXTEND", Fig. 2H) made of one or more bits in the beginning byte or word of the Move data (P. 7, Lines 5-15); wherein the length of the data string to be copied from

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the pre-updating file is expressed only by information in the byte or word when the data length continuation flag takes a prescribed first state (P. 6, Lines 45-50); and wherein data length information is outputted when the data length continuation flag takes a prescribed second state different from the first state (P.7, Lines 5-20), the data length information indicating that information expressing the length of the data string continues in one or more bytes or words (interpreted to include "four character sequence", P. 7, Lines 20-25) in or after the byte or word is continued. (see "Run 6" heading)

Regarding claim 13, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move data output unit provides a data length continuation flag (interpreted to include "EXTEND", Fig. 2H) made of one or more bits in or after the second byte or word of the Move data (P. 7, Lines 5-15); wherein the length of the data string to be copied from the pre-updating file is expressed by information between the beginning byte or word of the Move data and the byte or word, when the data length continuation flag takes the prescribed first state (P. 6, Lines 54-56); and wherein data length information is outputted when the data length continuation flag takes the prescribed second state different from the first state (P. 6, Lines 50-56), the data length information indicating that information expressing the length of the data string in one or more bytes or words in and after the byte or word is continued. (P. 9, Lines 40-45)

Regarding claim 14, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move data output unit outputs address information that uses an absolute

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address (P. 19, Lines 51-53) in at least one of the pre-updating file and the post-updating file as information indicating a location for moving a data string to be copied from the pre-updating file to the post-updating file in the Move data. (Fig. 2, 2D)

Regarding claim 15, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move data output unit outputs address information that uses a relative address indicating the difference between the location of a data string in the pre-updating file and the location of the data string in the post-updating file as information indicating a location for moving the data string to be copied from the pre-updating file to the post-updating file. (Fig. 1F, 1H, 2E)

Regarding claim 16, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move data output unit and the Add data output unit produce and output the Move data and the Add data based on the order of data strings in the post-updating file (P. 50, Lines 54-58; Fig. 3, 4); and wherein the Move data output unit outputs address information that uses a relative address indicating the difference between the beginning location of a data string in the pre-updating file and the size of restored data in the post-updating file as information indicating a location for moving the data string to be copied from the pre-updating file to the post-updating file. (P. 10, Line 56-58; P. 11, Lines 20-25)

Regarding claim 17, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move data output unit outputs an address continuation flag (P. 8, Line 27)

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made of one or more bits in the beginning byte or word of the data string in the address information by the relative address in the Move data; wherein the Move data output unit expresses the relative address only by the information in the byte or word when the address continuation flag takes a prescribed first state; and wherein the Move data output unit outputs address information indicating that information that expresses the relative address continues in one or more bytes or words in and after the byte or word when the address continuation flag takes a prescribed second state different from the first state. (Fig. 1F, 1H, 2, 2E, 2F)

Regarding claim 18, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move data output unit provides an address continuation flag (P. 8, Line 27) made of one or more bits in and after the second byte or word in the data string in the address information by the relative address in the Move data; and wherein the Move data output unit (Fig. 2B) outputs address information indicating that information that expresses the relative address by information between the beginning byte or word of the data string in the address information and the byte or word when the address continuation flag takes the prescribed first state, and that expresses the relative address in one or more bytes or words in and after the byte or word when the address continuation flag takes the prescribed second state different from the first state. (Fig. 2F, 5, 1, 4)

Regarding claim 19, Korn discloses the differential data producing device (Fig. 1) according, wherein when the same relative address exists in a plurality of pieces of Move data in address information in the Move data, the Move data output unit expresses the one or more

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relative addresses by one or more bits in the beginning byte of word of the Move data. (Fig. 2D, 2E, 4)

Regarding claim 20, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move data output unit outputs address information that uses a relative address indicating the difference between the location of the data string in the pre-updating file and the location of the data string in the post-updating file or the difference between the beginning location of the data string in the pre-updating file and the size of restored data (appendix) in the post-updating file as information representing the location of a data string to be copied from the pre-updating file to the post-updating file in the Move data (Fig. 3); wherein an address change flag made of one or more bits is provided in the Move data; wherein the Move data output unit outputs address information by the relative address following data length information indicating the length of the data string when the address change flag takes a prescribed first state (Fig. 2); and wherein the Move data output unit omits information expressing the relative address as the relative address in the previous Move data and the relative address in the present Move data are the same when the address change flag takes a prescribed second state different from the first state. (Fig. 2B)

Regarding claim 21, Korn discloses the differential data producing device (Fig. 1) according, wherein the Move data output unit expresses the relative address in the address information in the Move data by the amount of change from the relative address in the previous Move data. (Fig. 3, 2G, 2F)

Regarding claim 22, Korn discloses a differential data producing program (see appendix) enabling a computer to implement the functions of the unit in the differential data producing device in the data updating system according. (Fig. 1, abstract)

Regarding claim 23, Korn discloses a post-updating file restoring device (interpreted to include "TARGET COMPUTER", Fig. 1) in a data updating system receiving differential data representing the difference (interpreted to include "transformation", Fig. 1) between a pre-updating file (interpreted to include "earlier version", abstract) as one version of data (interpreted to include "VERSION 1", Fig. 1) and a post-updating file (interpreted to include "later version", abstract) as another version of the data (interpreted to include "VERSION 2", Fig.1) and restoring the post-updating file based on the pre-updating file stored in the post-updating file restoring device (interpreted to include "TARGET COMPUTER", Fig. 1) and the differential data (interpreted to include "TRANSFORMATION", Fig. 1), the post-updating file restoring device (interpreted to include "TARGET COMPUTER", Fig. 1), comprising: a Move/Add determining unit (interpreted to include "similar passages..difference passages", P. 37, Lines 5-10) which determines whether the differential data is Move data representing a Move instruction to move and copy a matching data string from a part or all of the pre-updating file to the post-updating file or Add data representing an Add instruction to add and copy a data string in the differential data to the post-updating file (interpreted to include "copying...adding", P. 37, Lines 32-36); a Move data restoring unit which outputs a data string corresponding to the Move data (interpreted to include "COPY", P. 37, Lines 44-46); and an Add data restoring unit which

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outputs a data string corresponding to the Add data (interpreted to include "ADD", P. 37, Lines 49-51), wherein the post-updating file is produced from the differential data. (interpreted to include "reconstruction of VERSION2", P. 10, Lines 20-25)

Regarding claim 24, Korn discloses the post-updating file restoring device (Fig. 1) according, wherein in the differential data, the Move/Add determining unit discriminates data (P. 5, Line 5) expressing a Move instruction and provided after a separator made of particular data as the Move data and data expressing an Add instruction provided between the beginning of the differential data or the end of the previous Move data and the presence of the separator as the Add data. (Fig. 2A, 2)

Regarding claim 25, Korn discloses the post-updating file restoring device (Fig. 1) according, wherein when the separator is present in a data string and data following the separator is particular data in the differential data, the Move (interpreted to include "COPY", Fig. 2)/Add determining unit determines the separator as data present in the Add data, the data being used as a separator instead of the separator. (see " " or other white space line breaks, Fig. 2)

Regarding claim 26, Korn discloses the post-updating file restoring device (Fig. 1) according, wherein the Move data restoring unit determines data length information provided in the Move data to determine the length of a data string to be copied from the pre-updating file to the post-updating file, and detects a data continuation flag made of one or more bits in the beginning byte or word of the Move data (P. 7, Lines 5-15); wherein when the data length

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continuation flag takes a prescribed first state (P. 7, Lines 10-20), the data Move data restoring unit determines the data length information from information in the byte or word, and determines the length of the data string to be copied; and wherein when the length of the data length continuation flag takes a prescribed second state different from the first state (P. 7, Lines 15-20), the Move data restoring unit determines that the data length information continues in one or more bytes or words in and after the byte or word. (Fig. 2E, 2F, 2G, 2H, 8, 10)

Regarding claim 27, Korn discloses the post-updating file restoring device (Fig. 1) according, wherein the Move data restoring unit detects a data length continuation flag made of one or more bits in and after the second byte or word of the Move data (P. 7, Lines 5-15, Fig. 5); wherein when the data length continuation flag takes the prescribed first state, the Move data restoring unit determines data length information from information between the beginning byte or word of the Move data and the byte or word; and wherein when the data length continuation flag takes the prescribed second state different from the first state (Fig. 2F), the Move data restoring unit determines that the data length information continues in one or more bytes or words in and after the byte or word. (Fig. 10)

Regarding claim 28, Korn discloses the post-updating file restoring device (Fig. 1) according, wherein the Move data restoring unit determines address information provided in the Move data, and determines a location for moving a data string is to be copied from the pre-updating file to the post-updating file (P. 9, Lines 30-35); and wherein the Move data restoring unit determines address information expressed by a relative address representing the difference

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between the location of the data string in the pre-updating file and the location of the data string in the post-updating file or the difference between the beginning location of the data string in the pre-updating file and the size of restored data in the post-updating file. (Fig. 1F, 1H, 2, 2E, 2F, 2G)

Regarding claim 29, Korn discloses the post-updating file restoring device (Fig. 1) according, wherein the Move data restoring unit detects an address continuation flag made of one or more bits in the beginning byte or word in the data string in address information by the relative address in the Move data (P. 10, Lines 30-50); wherein the Move data restoring unit determines the address information of the relative address from information in the byte or word to determine the location of the data string to be copied when the address continuation flag takes the prescribed first state; and wherein the Move data restoring unit determines that the address information continues in one or more bytes or words in and after the byte or word when the address continuation flag (P. 7, Lines 10-20) takes the prescribed second state different from the first state. (Fig. 1F, 1H, 2, 2E, 2F, 2G)

Regarding claim 30, Korn discloses the post-updating file restoring device (Fig. 1) according, wherein the Move data restoring unit detects an address continuation flag made of one or more bits in and after the second byte or word in the data string in the address information by the relative address in the Move data (P. 10, Lines 30-50); wherein the Move data restoring unit determines the address information of the relative address from the beginning byte or word of the data string in the address information or information in the byte or word to determine the

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location of the data string to be copied when the address continuation flag takes the prescribed first state; and wherein the Move data restoring unit determines that the address information continues in one or more bytes or words in and after the byte or word when the continuation flag (P. 7, Lines 10-20) takes the prescribed second state different from the first state. (Fig. 1F, 1H, 2, 2E, 2F, 2G, 3, 5)

Regarding claim 31, Korn discloses the post-updating file restoring device (Fig. 1) according, wherein the Move data restoring unit determines address information expressed by one or more bits in the Move data (Fig. 2A, 10), and determines the location of the data string to be copied, one or more relative address values corresponding to the address information being the same relative address values. (P. 5, Lines 10-19; P. 6, Lines 15-20)

Regarding claim 32, Korn discloses the post-updating file restoring device (Fig. 1) according, wherein the Move data restoring unit detects an address change flag made of one or more bits in the Move data (Fig. 10), and determines address information by the relative address (P. 6, Lines 54-56) provided following data length information representing the length of the data string to be copied, when the address change flag takes a prescribed first state; and wherein the Move data restoring unit determines the location of the data string to be copied using the same relative address as the relative address (P. 6, Lines 54-56) in the previous Move data when the address change flag takes a prescribed second state different from the first state. (P. 5, Lines 35-60; P. 9, Lines 40-50; Fig. 1F, 1H, 2, 2E, 2F, 2G, 3, 5)

Regarding claim 33, Korn discloses a post-updating file restoring program (source code listings, appendix) for enabling a computer to implement the functions of the units in the post updating file restoring device in the data updating system according. (Fig. 1, Abstract)

Regarding claim 34, Korn teaches the differential data producing device (Fig. 1) according, wherein the Move data output unit outputs an address continuation flag made of one or more bits in the beginning byte or word of the data string in the address information by the relative address in the Move data; wherein the Move data output unit expresses the relative address only by the information in the byte or word when the address continuation flag takes a prescribed first state; and wherein the Move data output unit outputs address information indicating that information that expresses the relative address continues in one or more bytes or words in and after the byte or word when the address continuation flag takes a prescribed second state different from the first state. (P. 7, Lines 5-25; P. 8, Lines 5-29; P. 9, 1-30)

Regarding claim 35, Korn teaches the differential data producing device (Fig. 1) according, wherein when the same relative address exists in a plurality of pieces of Move data in address information in the Move data, the Move data output unit expresses the one or more relative addresses by one or more bits in the beginning byte of word of the Move data. (P. 7, Lines 5-25; Fig. 5, Line 16; P. 8, Lines 5-29)

Regarding claim 36, Korn teaches the differential data producing device (Fig. 1) according, wherein the Move data output unit expresses the relative address in the address

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information in the Move data by the amount of change from the relative address in the previous Move data. (P. 8, Lines 10-29)

Regarding claim 37, Korn teaches the differential data producing device (Fig. 1) according, wherein the Move data output unit expresses the relative address in the address information in the Move data by the amount of change from the relative address in the previous Move data. (P. 8, Lines 10-29; P. 7, Lines 5-25; Fig. 5, Line 16; P. 8, Lines 5-29)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Korn et al., European Patent Application 0 717 353 A2, published 19 June 1996, hereinafter Korn in view of Hitz et al., US Patent No. 6,065,037 A, published 16 May 2000, hereinafter Hitz in further view of Miller, US Patent No. 5,832,520 A, published 03 May 1998.

Regarding claim 9, Korn discloses the differential data producing device (Fig. 1) according, wherein when the differential data producing device is used for a data updating system that transfers a program and data in a computing system.

Korn does not explicitly teach using a 32-bit CPU, the threshold in the Move/Add determining unit is set to five bytes.

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However, Hitz teaches using a 32-bit CPU.

However, Miller teaches the threshold in the Move/Add determining unit is set to five bytes.

Korn and Hitz and Miller are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to combine Korn and Hitz by the "implementation of a high-performance, high-throughput file server" as discussed in Col. 4, Line 26. A skilled artisan would have been motivated to Korn and Miller by the desire of "the smallest possible difference file" as discussed in Col. 2, Lines 33-34.

Therefore it would have been obvious to a person having ordinary skill in the art at the time of the invention to combine the teachings of Korn and Hitz and Miller to implement a "high-performance, high-throughput file server" and to have "the smallest possible difference file" as discussed respectively in Hitz, Col. 4, Line 26 and Miller, Col. 2, Lines 33-34.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Wong whose telephone number is 571-270-1015. The examiner can normally be reached on Mon.-Thur. 8AM - 5:30PM and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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